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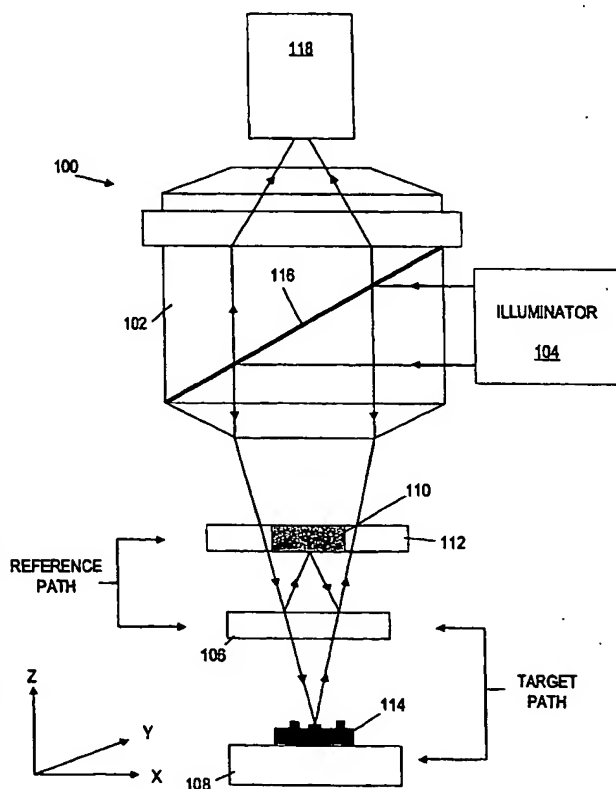
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[Continued on next page]

(54) Title: NON-DESTRUCTIVE OPTICAL IMAGING SYSTEM FOR ENHANCED LATERAL RESOLUTION



(57) Abstract: In some embodiments, an optical imaging system (100) comprises a non-destructive optical device (102) that obtains information concerning a target object (114) and a X,Y positioning system (108) that is capable of positioning one or both of the target object and the optical device to pre-determined offset locations more closely spaced than the obtainable resolution of the optical device. A first "base" image is produced and then overlapping additional images may be produced by the positioning of one or both of the target object and the optical device to the pre-determined locations. The first image and the additional images may be combined to produce a single combined image that contains inherently more information than the first image or any of the additional images alone. The combined image then may be digitally restored and enhanced to produce an image with a greater resolution than the optical device yields.

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A. CLASSIFICATION OF SUBJECT MATTER		
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B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
U.S. : 356/511, 500, 501, 512, 516		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,208,451 A (DECK) 04 May 1993 (04.05.1993), Fig. 1.	1, 11, 14, 16
X	US 6,028,670 A (DECK) 22 February 2000 (22.02.2000), Fig. 1.	1, 11, 14, 16
A	US 6,493,093 B2 (HARASAKI et al) 10 December 2002 (10.12.2002), see entire document.	1-18
A	US 5,914,782 A (SUGIYAMA) 22 June 1999 (22.06.1999), see entire document.	1-18
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
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